

SEWER PROJECTS

***ENCINA WATER POLLUTION CONTROL
FACILITY PROJECTS***

FUNDING MATRIX FOR ENCINA WATER POLLUTION CONTROL FACILITY PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
					YEAR 1 2008-09	YEAR 2 2009-2010	YEAR 3 2010-2011	YEAR 4 2011-2012	YEAR 5 2012-2013	YEAR 6-10 2013-2018	BUILDOUT 2018-2023
5800	58001	BUILDING IMPROVEMENTS	SEWER REPL	4,552,878							
5801	58011	CAPITAL ACQ/REPL/REHAB AND STAFFING	SEWER REPL	17,425,028	744,152	967,252	1,441,019	1,578,061	1,205,020	6,690,054	3,020,973
		PHASE IV EXPANSION - DEBT SERVICE	SEWER CONN	7,457,651	937,170	933,007	931,419	932,469	931,469	1,856,610	
5803	58031	PHASE V EXPANSION	SEWER CONN	10,603,878							

CAPITAL PROJECT DESCRIPTION

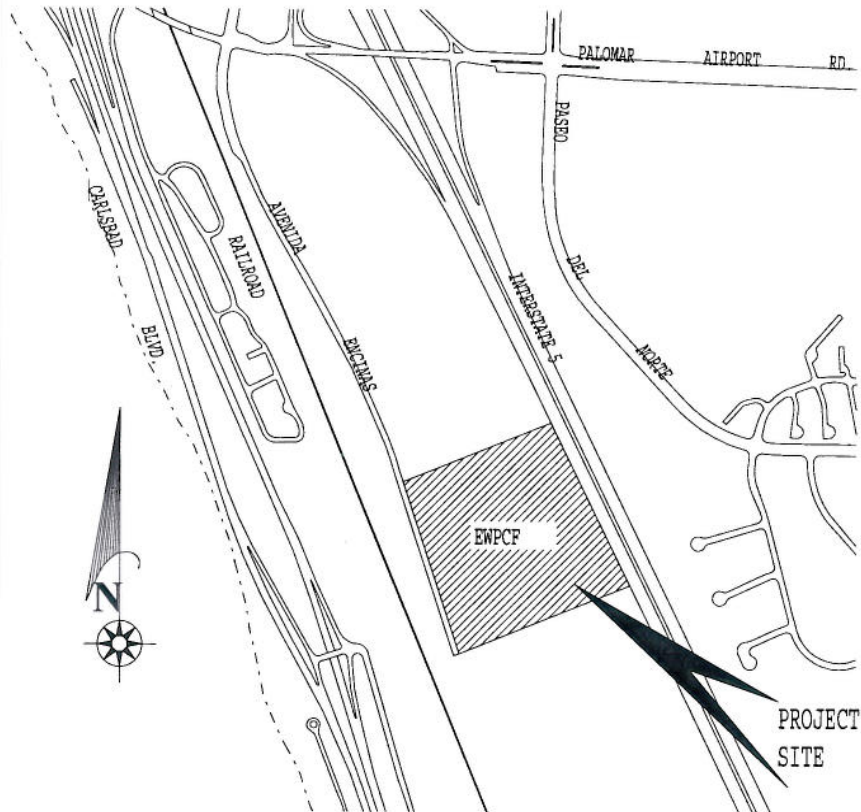
ENCINA WATER POLLUTION CONTROL FACILITY - BUILDING IMPROVEMENTS

PROJECT NAME

5800

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Encina Water Pollution Control Facility at 6200 Avenida Encinas.

PROJECT DESCRIPTION:

To construct and/or improve existing building facilities at the Encina Water Pollution Control Facility. Cost represents City's pro-rated share of the building improvements.

Building improvements include:

- Additional Office
- Employee Locker Facilities
- Expanded Laboratory Facilities

PROJECT NEED:

Needed to provide office and laboratory facilities at the Encina Water Pollution Control Facility.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$4,552,878	Sewer Replacement
Total Cost =	\$4,552,878	

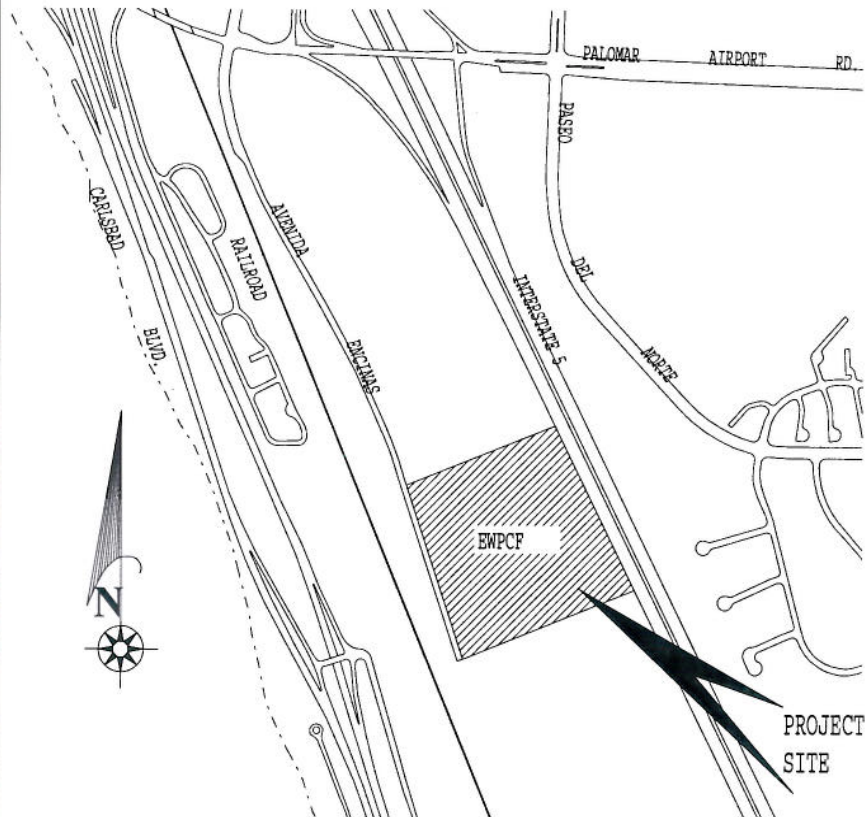
CAPITAL PROJECT DESCRIPTION

ENCINA WATER POLLUTION CONTROL FACILITY - CAPITAL ACQUISITIONS REPLACEMENT/REHABILITATION

PROJECT NAME

5801
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Encina Water Pollution Control Facility at 6200 Avenida Encinas.

PROJECT DESCRIPTION:

The funds for this project are used by the Encina Water Pollution Control Facility to develop and construct its buildout Capital Improvement Program. The cost is Carlsbad's share to cover staff, overhead, and hiring consultants to design and develop bid specifications for future capital acquisitions and the replacement / rehabilitation / construction of facilities at the sewer treatment plant.

PROJECT NEED:

To ensure the efficient and effective operation of Encina Water Pollution Control Facility.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$17,425,028	Sewer Replacement
Total Cost =	\$17,425,028	

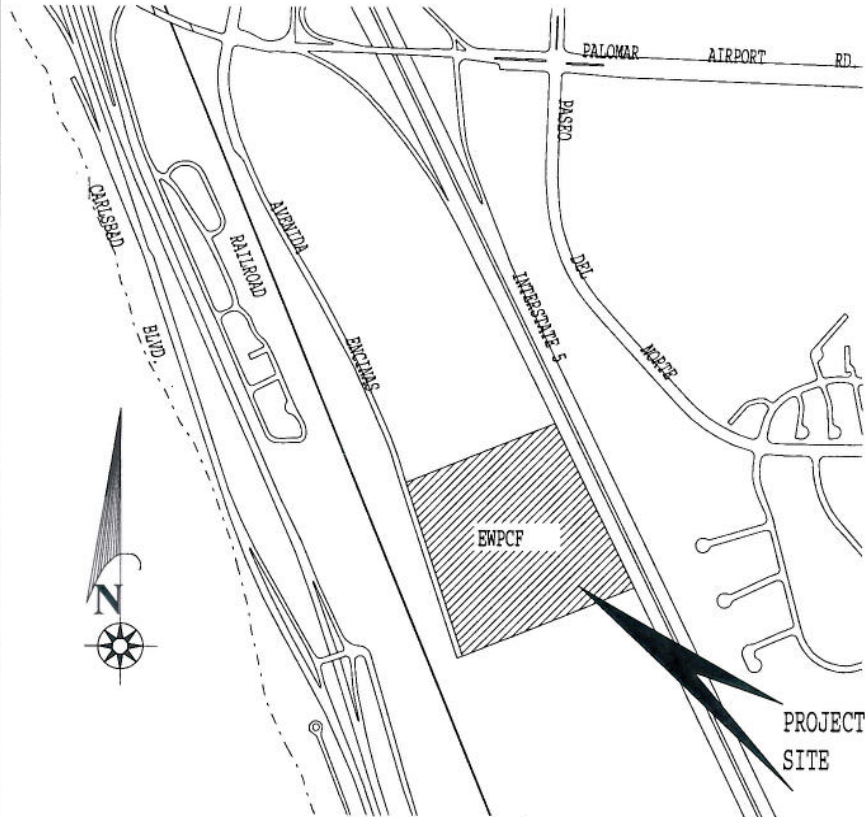
CAPITAL PROJECT DESCRIPTION

ENCINA WATER POLLUTION CONTROL FACILITY - PHASE IV EXPANSION DEBT SERVICE

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

South of Palomar Airport Road on the east side of Avenida Encinas.

PROJECT DESCRIPTION:

Expansion of the Encina Water Pollution Control Facility to increase treatment capacity from 22.5 million gallons per day to 36.0 million gallons per day of raw sewage. Cost includes bond financing and interest costs.

PROJECT NEED:

Required to meet Growth Management Standards and identified in the Master Plan of Sewage.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Debt Service	\$7,457,651	Sewer Connection
Total Cost =	\$7,457,651	

CAPITAL PROJECT DESCRIPTION

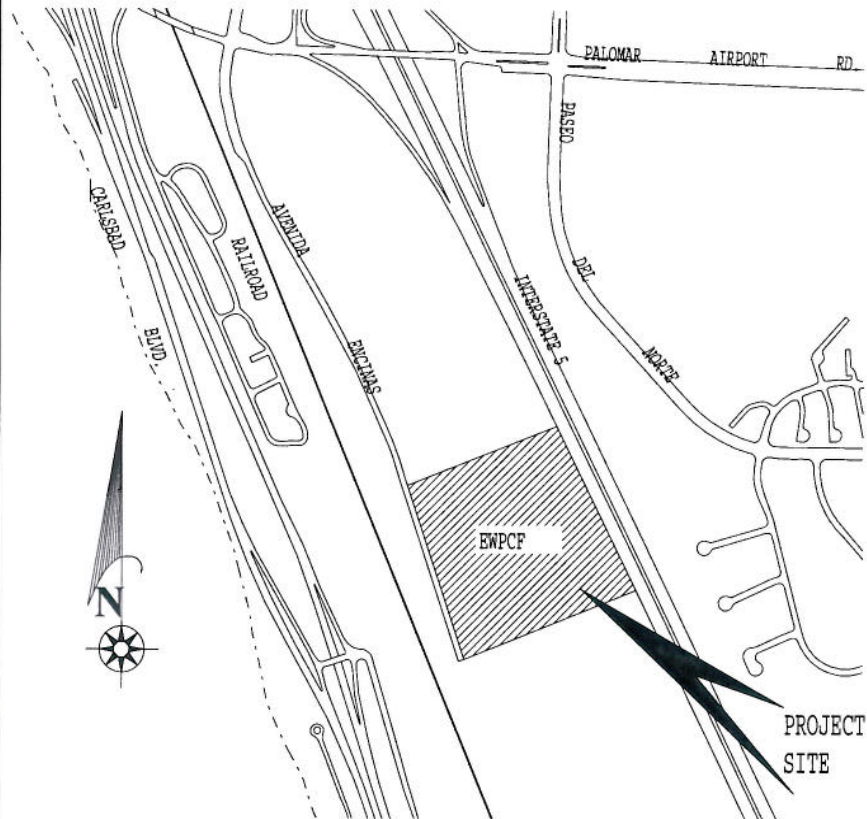
ENCINA WATER POLLUTION CONTROL FACILITY - PHASE V EXPANSION

PROJECT NAME

5803

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Encina Water Pollution Control Facility at 6200 Avenida Encinas.

PROJECT DESCRIPTION:

Expand the Encina Water Pollution Control Facility to buildout for the treatment of 45-60 MGD of wastewater. Cost represents City's pro-rated share of the Phase V expansion.

PROJECT NEED:

To provide for ultimate wastewater treatment capacity of the Carlsbad Sewer District.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$10,603,878	Sewer Connection
Total Cost =	\$10,603,878	

SEWER COLLECTION SYSTEM PROJECTS

FUNDING MATRIX FOR SEWER COLLECTION SYSTEM PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
					YEAR 1 2008-09	YEAR 2 2009-2010	YEAR 3 2010-2011	YEAR 4 2011-2012	YEAR 5 2012-2013	YEAR 6-10 2013-2018	BUILDOUT 2018-2023
		AVENIDA ENCINAS GRAVITY SEWER	SEWER REPL	276,300		276,300					
		BEECH STREET SEWER REPLACEMENT	SEWER REPL	1,947,000	1,947,000						
5501	55011	BUENA INTERCEPTOR SEWER IMPROVEMENTS	SEWER REPL	2,840,000	500,000	1,380,000					
5507	55071	CALAVERA HILLS TREATMENT PLANT - DEMOLITION	SEWER REPL	689,000		142,000	523,500				
		CARLSBAD TRUNK SEWER REACHES VCT1A, VCT1B, VCT1C (SBA "A")	SEW BENEF	120,600					103,600	17,000	
		CARLSBAD TRUNK SEWER REACHES VCT1A, VCT1B, VCT1C (SBA "A")	SEWER REPL	427,635						427,635	
		CONDITION ASSESSMENT OF SEWER MAINS	SEWER REPL	626,000	313,000				313,000		
3622	36224	FARADAY AVENUE - ORION TO MELROSE SEWER (See Streets Section)	SEWER REPL	110,200							
3873	38731	HOME PLANT - PIPELINE REPLACEMENT	SEWER REPL	534,000	94,000						
		HOME PLANT LIFT STATION REPLACEMENT	SEWER REPL	1,812,000	1,812,000						
3951	39511	LA COSTA MEADOWS SEWER EXTENSION	SEWER REPL	1,146,877	107,357						
5500	55001	LA GOLONDRIA SEWER EXTENSION	SEWER REPL	1,108,543	107,148						
3573	35371	NORTH AGUA HEDIONDA INTERCEPTOR - WEST SEGMENT	SEWER REPL	4,177,751							
		NORTH AGUA HEDIONDA TRUNK SEWER REACH NAHT1A (SBA "B")	SEWER REPL	1,737,000	767,000		970,000				
3538	35381	NORTH BATIQUITOS INTERCEPTOR REHABILITATION	SEWER REPL	1,199,000							
3875	38751	POINSETTIA SEWAGE LIFT STATION ODOR/NOISE ABATEMENT	SEWER REPL	669,500							
5505	55051	SEWER LIFT STATION REMOVALS - VARIOUS	SEWER REPL	689,000		600,000					
3840	38401	SEWER LIFT STATION REPAIRS AND UPGRADES	SEWER REPL	1,360,380	80,000	100,000	100,000	100,000	100,000	300,000	
3927	55031	SEWER LINE REFURBISHMENTS/REPLACEMENT AND MANHOLES	SEWER REPL	5,974,600	330,000	330,000	330,000	330,000	330,000	1,650,000	274,600
		SEWER MASTER PLAN/CONNECTION FEE UPDATE	SEWER REPL	500,000	500,000						
5504	55041	SEWER MONITORING PROGRAM	SEWER CONN	352,000	22,000	22,000	22,000	22,000	22,000	110,000	66,000
5502	55021	TERRAMAR LIFT STATION REPLACEMENT	SEWER REPL	517,000		492,000					
5508	55081	VISTA/CARLSBAD INTERCEPTOR BUENA VISTA LIFT STATION FORCE MAIN (VC-4)	SEWER CONN	3,350,000	2,850,000						
3492	34921	VISTA/CARLSBAD INTERCEPTOR AGUA HEDIONDA LIFT STATION (VC12)	SEWER CONN	17,400,000	1,400,000	14,180,640					
3886	38861	VISTA/CARLSBAD INTERCEPTOR REACH VC11B	SEWER CONN	6,430,000	616,000	2,265,000					
3949	39491	VISTA/CARLSBAD INTERCEPTOR REACH VC13 TO VC15	SEWER CONN	14,700,000	800,000	12,100,000					
3867	38671	VISTA/CARLSBAD INTERCEPTOR REHAB REACHES 1 AND 2	SEWER REPL	830,975							
3950	39501	VISTA/CARLSBAD INTERCEPTOR REPLACEMENT REACH 3	SEWER CONN	2,688,220			596,220	2,092,000			

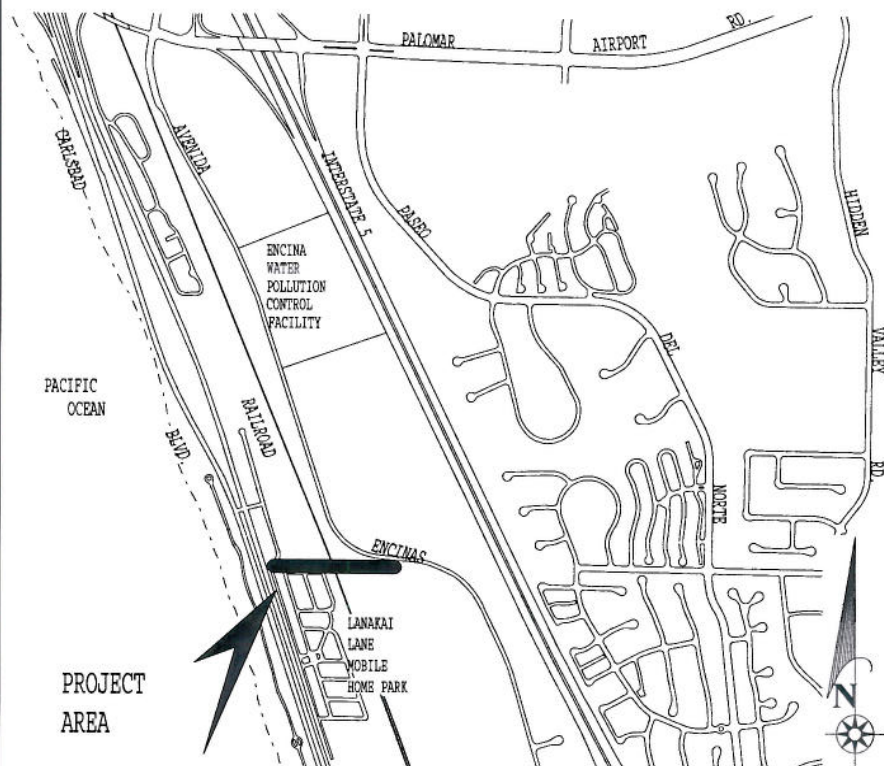
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - AVENIDA ENCINAS GRAVITY SEWER

PROJECT NAME

3581
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along north side of Lanakai Mobile Home Park.

PROJECT DESCRIPTION:

Replace approximately 1,000 feet of 8" gravity sewer.

PROJECT NEED:

The existing forcemain releases unacceptable levels of hydroden sulfide gas resulting in numerous odor complaints and deterioration of the gravity sewer system.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Admin/Insp	\$61,250	Sewer Replacement
Construction	\$215,050	Sewer Replacement
Total Cost =	\$276,300	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – BEECH AVENUE SEWER REPLACEMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Sewer main on Beech Avenue from Ocean Street to Washington Street.

PROJECT DESCRIPTION:

The project would include the removal of the existing sewer pipeline, installing a new sewer line by means of pipe jacking, and installing a new collector sewer for the sewer laterals.

PROJECT NEED:

The existing 30 year old 8" sewer pipe in Beech Avenue collects sewage from the businesses and residents along Ocean Street, Christiansen Way, Grand Avenue, Carlsbad Village Drive, Oak Avenue, and Pine Avenue. Based on video surveillance, the sewer line is significantly deteriorated and requires frequent maintenance. The project is needed to prevent sudden failure and to restore the sewer pipeline to convey tributary wastewater flow.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$45,000	Sewer Replacement
Construction	\$1,902,000	Sewer Replacement
Total Cost =	\$1,947,000	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – BUENA INTERCEPTOR SEWER IMPROVEMENTS

PROJECT NAME

5501
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Buena Interceptor Sewer from El Camino Real to the Encina Wastewater Treatment Plant.

PROJECT DESCRIPTION:

The Buena Interceptor Sewer conveys wastewater for the cities of Carlsbad and Vista. The existing system capacity is inadequate for projected future flows. The project will be mitigated with an alignment and capacity studies with an alternatives analysis.

PROJECT NEED:

Required to meet future sewer drainage basin flows. Also required pursuant to the Carlsbad/Buena Sanitation Agreement.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Studies	\$100,000	Sewer Replacement
Design	\$104,000	Sewer Replacement
Environmental	\$80,000	Sewer Replacement
Construction	\$2,380,000	Sewer Replacement
Admin/Inspection	\$176,000	Sewer Replacement
Total Cost =	\$2,840,000	

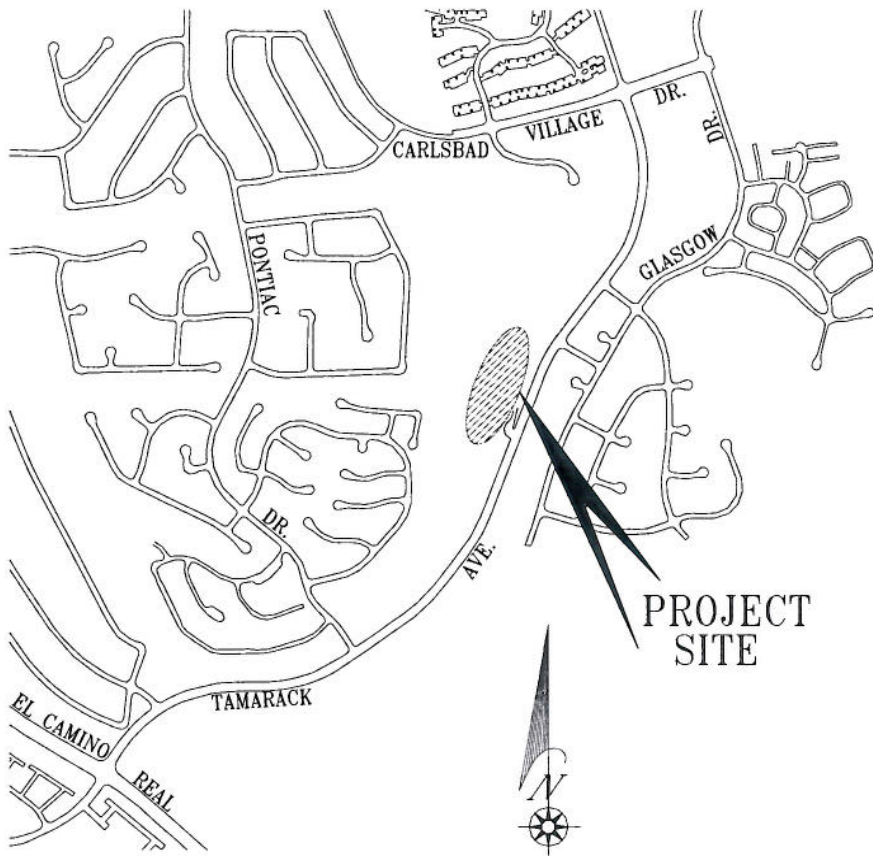
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – DEMOLITION OF CALAVERA HILLS TREATMENT PLANT

PROJECT NAME

5507
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Northwest of Tamarack Avenue between Pontiac Drive and Carlsbad Village Drive.

PROJECT DESCRIPTION:

Study and propose a demolition plan for the existing Calavera Hills Sewer Treatment Plant.

PROJECT NEED:

The existing Calavera Hills Sewer Treatment Plant is now obsolete due to the full upgrade of the Encina Wastewater Treatment Facility. The project is needed because the facility has been abandoned, buildings and tanks are in disrepair, and the site is considered an attractive nuisance.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Study	\$23,500	Sewer Capital Replacement
Design	\$36,000	Sewer Capital Replacement
Environmental Review	\$21,000	Sewer Capital Replacement
Construction	\$608,500	Sewer Capital Replacement
Total Cost =	\$689,000	

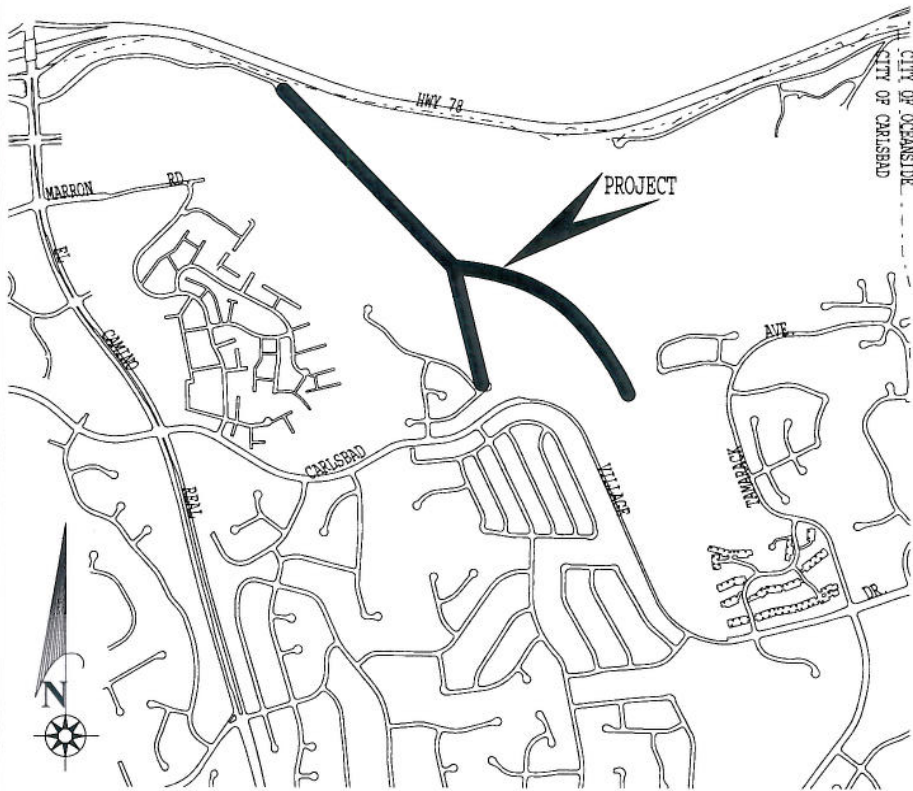
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - CARLSBAD TRUNK SEWER REACHES VCT1A, VCT1B, VCT1C

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From Vancouver Street and Simsbury Court within Calavera Hills north to the Vista Carlsbad Trunkline located adjacent to Highway 78.

PROJECT DESCRIPTION:

Construct 1,000 feet of 8-inch diameter sewer, 2,000 feet of 10-inch diameter sewer, and 3,000 feet of 12-inch diameter sewer.

PROJECT NEED:

As Calavera Hills developed, several temporary sewage lift stations were constructed due to a lack of existing facilities downstream of the project sites. At the time, it was anticipated that the downstream properties would develop in a timely fashion negating any need for long-term maintenance of the temporary lift stations. The two listed stations are aging and in need of increased repair and maintenance. In lieu of expending the additional funds to upgrade temporary stations, staff is proposing completing the extension of the gravity lines from the stations to the existing Vista Carlsbad Trunk Line sewer. The lift stations would then be abandoned and removed.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Land Acquisition	\$40,600	Sewer Benefit Zone Fee
Design	\$80,000	Sewer Benefit Zone Fee
Construction	\$427,635	Sewer Replacement
Total Cost =	\$548,235	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – SEWER FORCE MAIN / SIPHON CONDITION ASSESSMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:

VARIOUS LOCATIONS CITYWIDE

PROJECT LOCATION:

Each of the 14 force mains and siphons within the sewer system.

PROJECT DESCRIPTION:

The project consists of inspection and performing a condition assessment report to determine condition of the City's sewer force mains and siphons.

PROJECT NEED:

Per the WDR mandate, condition assessments of the sewer system force mains and siphons are required on a regular basis. Based on the inspection and ranking of needed improvements, staff will be able to better prioritize future CIP projects.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Study/Design	\$626,000	Sewer Replacement
Total Cost =	\$626,000	

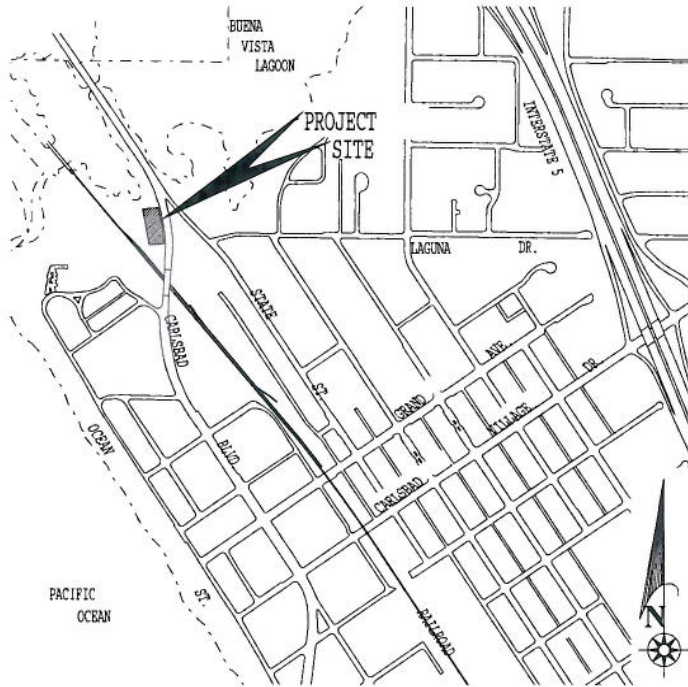
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – HOME PLANT LIFT STATION

PROJECT NAME

3873
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Home Plant Lift Station near Carlsbad Boulevard and northern City limits.

PROJECT DESCRIPTION:

Replace pumps, upgrade wetwell and manifold piping, relocate wetwell ventilation system, reconstruct influent sewer manhole, and replace 260 feet of 15-inch gravity sewer pipeline.

PROJECT NEED:

Field review shows that sand accumulating in the wet well is due to undersized pumps. Installing larger pumps, replacing existing pipeline, and completing the other upgrades will reduce the maintenance costs at the pump station.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$100,000	Sewer Replacement
Construction	\$2,206,000	Sewer Replacement
Admin/Inspection	\$40,000	Sewer Replacement
Total Cost =	\$2,346,000	

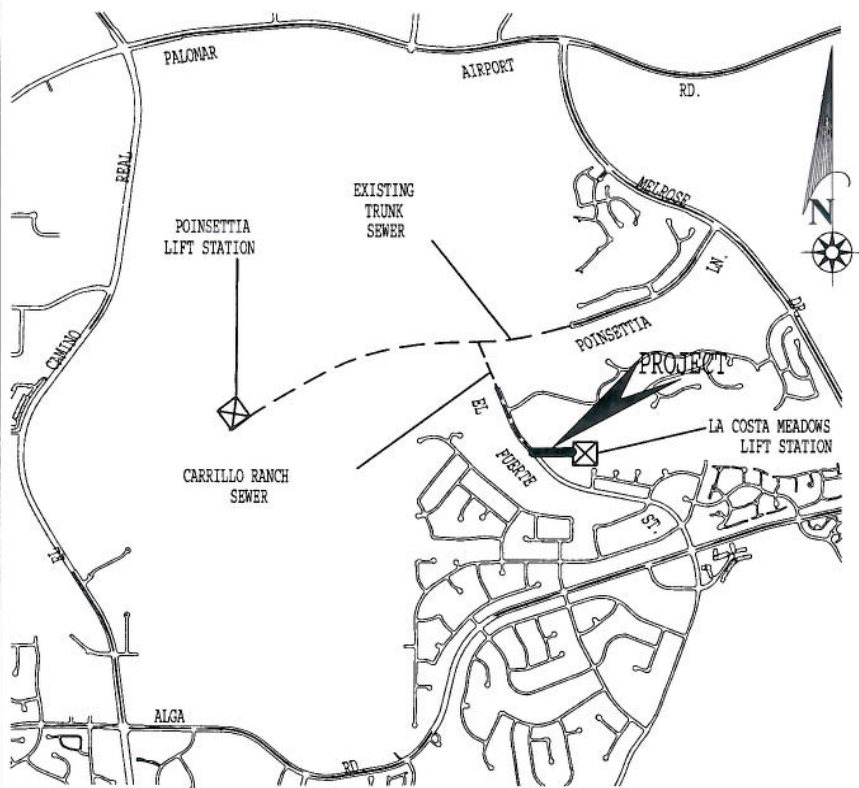
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - LA COSTA MEADOWS SEWER EXTENSION

PROJECT NAME

3951
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

In La Costa from the end of Chorlito Street to El Fuerte Street.

PROJECT DESCRIPTION:

Removal of the La Costa Meadows Lift Station and extension of an eight-inch gravity sewer approximately 600 feet to the new gravity sewer constructed in El Fuerte Street by the Rancho Carrillo project developer.

PROJECT NEED:

The La Costa Meadows Lift Station was constructed to temporarily divert sewage flows into existing Leucadia County Water District (LCWD) facilities. The diversion was required due to a lack of City sewer facilities located downstream of the La Costa Meadows project within the Rancho Carrillo Valley. The "diversion" agreement between the City and LCWD required the abandonment of the lift station and connection to City sewer facilities when the downstream properties were developed and new sewer facilities extended up El Fuerte Street. The needed downstream sewer collection facilities were recently constructed as part of the Rancho Carrillo project.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Acquisition	\$10,000	Sewer Replacement
Design	\$33,000	Sewer Replacement
Environmental	\$83,000	Sewer Replacement
Construction	\$930,557	Sewer Replacement
Admin/Inspection	\$90,320	Sewer Replacement
Total Cost =	\$1,146,877	

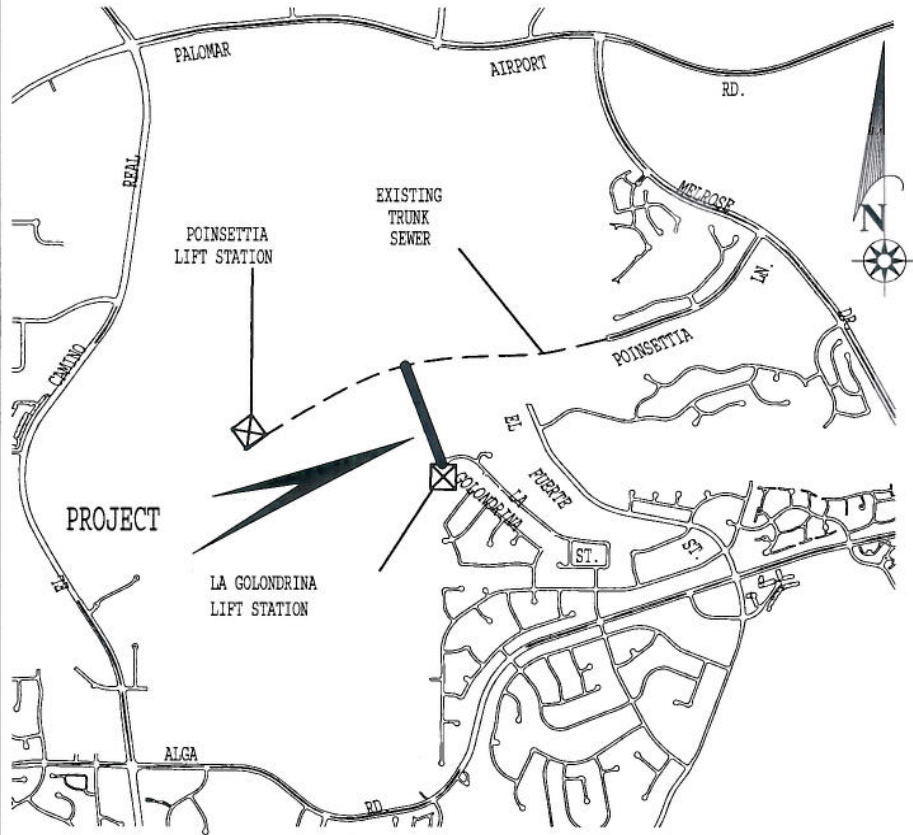
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - LA GOLONDRINA SEWER EXTENSION

PROJECT NAME

5500
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

In La Costa from the end of La Golondrina Street north of Poinsettia Lane.

PROJECT DESCRIPTION:

Removal of the La Golondrina Lift Station and extension of an eight-inch diameter gravity sewer approximately 1,000 feet to the new gravity sewer constructed in Poinsettia Lane by the Rancho Carrillo project developer.

PROJECT NEED:

The La Costa Golondrina Lift Station was constructed to temporarily divert sewage flows into existing Leucadia County Water District (LCWD) facilities. The diversion was required due to a lack of City sewer facilities located downstream of the Ponderosa Homes project within the Rancho Carrillo Valley. The "diversion" agreement between City and LCWD require the abandonment of the lift station and connection to City sewer facilities when the downstream properties were developed and new sewer facilities extended up the future Poinsettia Lane. The needed downstream sewer collection facilities were recently completed as part of the Rancho Carrillo project.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Planning/Study	\$10,000	Sewer Replacement
Land Acquisition	\$20,000	Sewer Replacement
Environmental	\$31,610	Sewer Replacement
Design	\$98,000	Sewer Replacement
Construction	\$849,498	Sewer Replacement
Admin/Inspection	\$99,435	Sewer Replacement
Total Cost =	\$1,108,543	

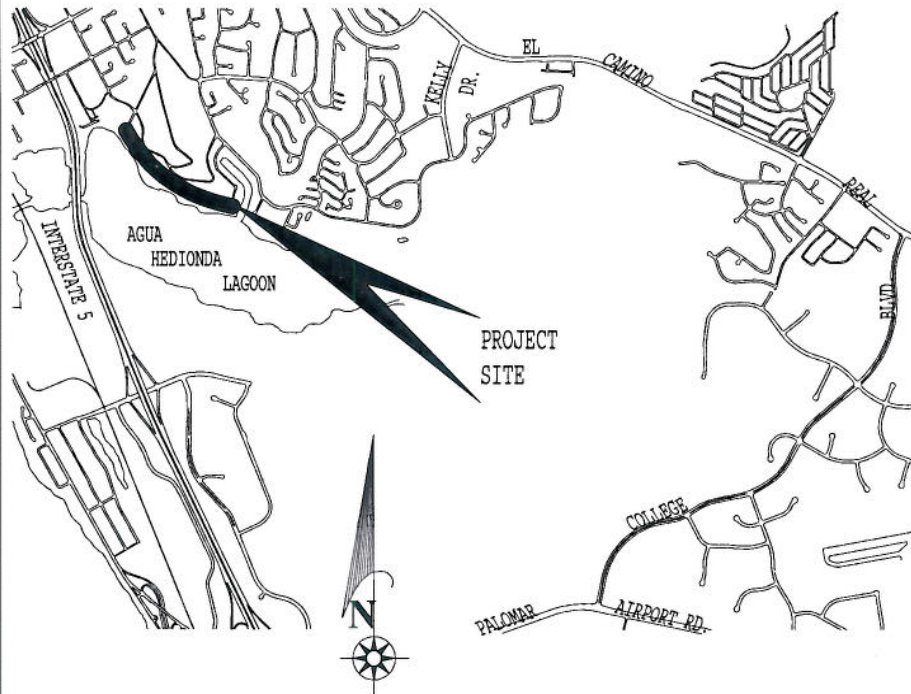
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – NORTH AGUA HEDIONDA INTERCEPTOR REHABILITATION – WEST SEGMENT COVE DRIVE TO HOOVER STREET

PROJECT NAME

3537
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

North bank of Agua Hedionda Lagoon and Creek, from Cove Drive to Hoover Street.

PROJECT DESCRIPTION:

- Design and construct access road and shoreline protection wall to facilitate gravity sewer maintenance from Cove Drive to Hoover Street.
- Design and construct erosion protection for access road and existing gravity sewer where needed.
- Replace 700 linear feet of 24-inch diameter sewerline.
- Replace/rehabilitate 19 access holes.
- Conduct environmental survey and prepare Environmental Impact Report necessary to obtain permits.
- Design and construct mitigation site.

PROJECT NEED:

Implementation of the project will avoid accidental sewage spill to the lagoon and creek, reduce inflow to the sewer, and allow for maintenance vehicles to access the sewer.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Study	\$24,599	Sewer Replacement
Environmental	\$829,808	Sewer Replacement
Property Acquisition	\$45,000	Sewer Replacement
Design	\$199,916	Sewer Replacement
Construction	\$3,078,427	Sewer Replacement
Total Cost =	\$4,177,750	

Annual Operating Cost = \$5,000

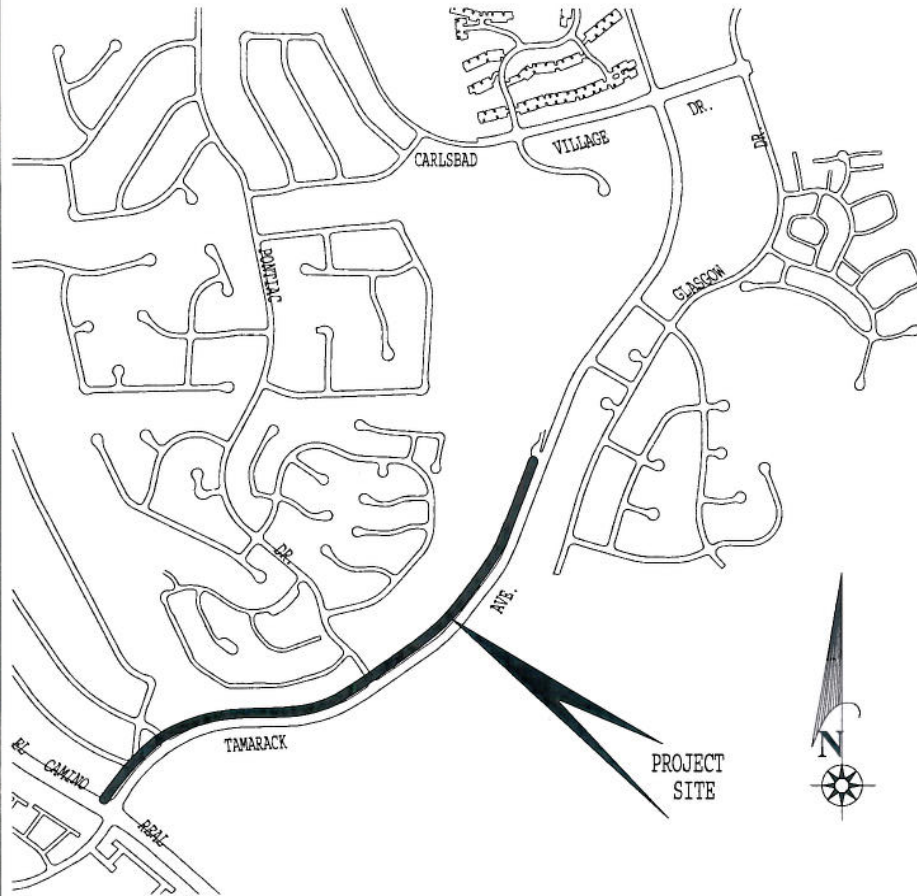
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - NORTH AGUA HEDIONDA TRUNK SEWER REACH NAHT1A

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along the north side of Tamarack Avenue from El Camino Real to Calavera Hills Treatment Plant.

PROJECT DESCRIPTION:

Remove existing forcemain and construct 5,000 feet of 8-inch diameter gravity sewer pipeline.

PROJECT NEED:

When the Calavera Hills Sewer Treatment Plant was initially constructed, there was no provision for extending a gravity sewer line downstream of the plant. When the decision was made not to activate the plant, the sewer mains discharging into the plant site were connected to force main pipe which was originally intended to carry flow up to the plant from projects located downstream of the plant. The existing force main is not sloped properly to handle gravity flow and lacks the necessary access holes for proper maintenance. Removal of the existing force main and construction of a new gravity line will complete this portion of the Sewer Master Plan.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Planning/Study	\$58,000	Sewer Replacement
Design	\$100,000	Sewer Replacement
Construction	\$1,479,000	Sewer Replacement
Admin/Inspection	\$100,000	Sewer Replacement
Total Cost =	\$1,737,000	

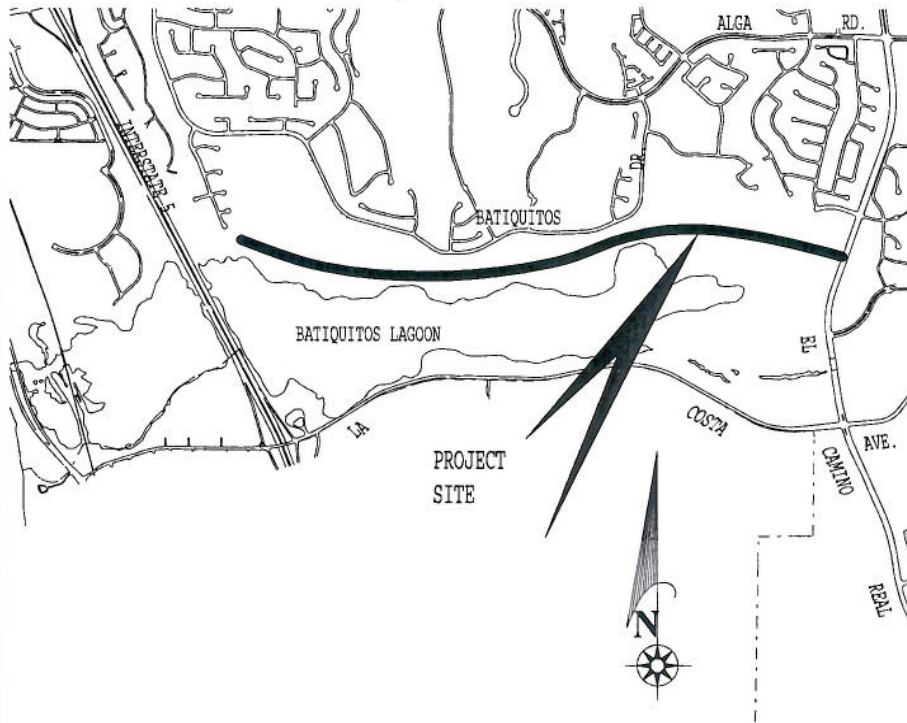
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - NORTH BATIQUITOS INTERCEPTOR REHABILITATION

PROJECT NAME

3538
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

North side of Batiquitos Lagoon from El Camino Real west to North Batiquitos Lift Station.

PROJECT DESCRIPTION:

During high rainfall periods, the Batiquitos Lagoon level rises to flood above the existing access road and access hole covers. The project will design a new access road to the sewer and raise access hole covers to a higher elevation where required.

PROJECT NEED:

To avoid accidental sewage spill, reduce inflow to the sewer, and allow for maintenance vehicles to access the sewer.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$270,000	Sewer Replacement
Environmental	\$80,000	Sewer Replacement
Land Acquisition	\$30,000	Sewer Replacement
Construction	\$719,000	Sewer Replacement
Admin/Inspection	\$100,000	Sewer Replacement
Total Cost =	\$1,199,000	

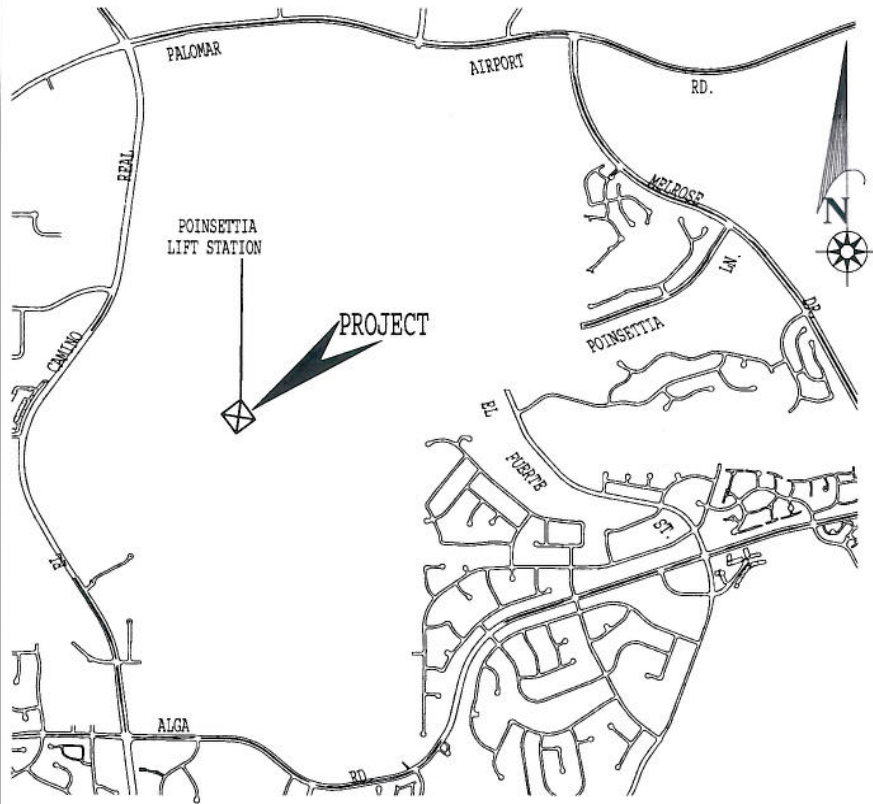
CAPITAL PROJECT DESCRIPTION

3875
PROJECT NO.

SEWER COLLECTION SYSTEM – POINSETTIA SEWAGE LIFT STATION ODOR AND NOISE ABATEMENT

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

2425 Poinsettia Lane – Poinsettia Sewage Lift Station.

PROJECT DESCRIPTION:

Installation of an activated carbon adsorption odor control system, including ducting, to treat foul air from the lift station wetwell to reduce corrosion and control odor emissions, and sound enclosures for outdoor fans.

PROJECT NEED:

The existing lift station emits odors that can reach future developments in close proximity to the lift station. In addition, uncovered supply and exhaust fans generate noise that reach or exceed 60 dBA at the fenceline. Control of the odors and reduction of noise will promote "good neighbor" policy and a higher level of service to adjacent residents.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$60,000	Sewer Replacement
Construction	\$589,500	Sewer Replacement
Admin/Inspection	\$20,000	Sewer Replacement
Total Cost =	\$669,500	

Annual Operating Cost = \$11,000

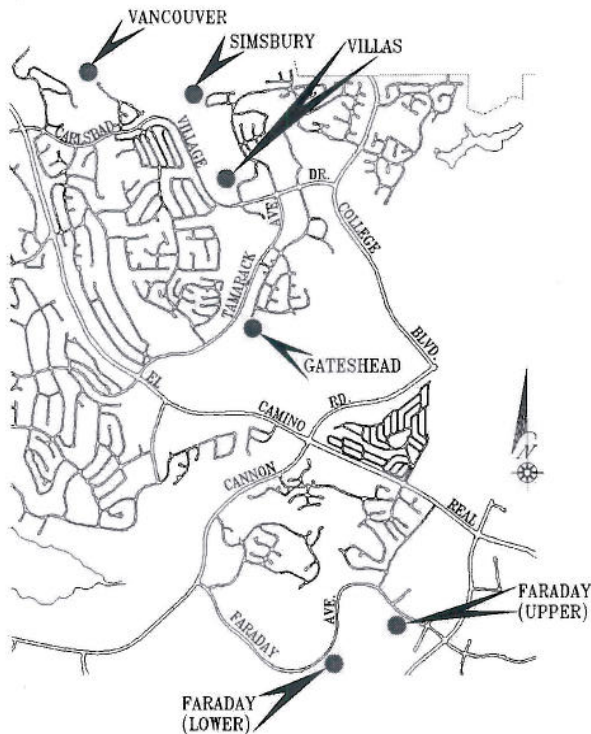
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – REMOVAL OF EXISTING LIFT STATIONS

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

- Gateshead
- Vancouver
- Simsbury
- Villas
- Upper Faraday
- Lower Faraday

PROJECT DESCRIPTION:

Remove existing lift stations and construct new gravity sewer.

PROJECT NEED:

Identified in 2003 Sewer Master Plan Update. Removal of lift stations will reduce maintenance and operation costs.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Admin/Insp	\$100,000	Sewer Replacement
Construction	\$589,000	Sewer Replacement
Total Cost =	\$689,000	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER LIFT STATION - MISCELLANEOUS REPAIRS & UPGRADES

PROJECT NAME

3840
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Villas, Terramar and Gateshead sewer lift stations.

PROJECT DESCRIPTION:

Repair and upgrade various sewer lift stations throughout the City. Repairs include replacing existing malfunctioning alarm dialers at the Home Plant and Villas Sewer Lift Stations; replacing old pumps at the Terramar, Villas and Gateshead Sewer Lift Stations; replacing existing gas monitoring units, and the wet well lining at the Villas Sewer Lift Station.

PROJECT NEED:

These projects are needed to properly maintain the existing sewer lift stations and prevent potential sewage spills. Many of the existing stations are 15 years or older and require periodic upgrades and/or replacement of pumps and electrical systems to increased maintenance costs.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$40,000	Sewer Replacement
Construction	\$1,275,380	Sewer Replacement
Admin/Inspection	\$45,000	Sewer Replacement
Total Cost =	\$1,360,380	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER LINE REFURBISHMENT/REPLACEMENT

PROJECT NAME

3927 & 5503
PROJECT NO.

PROJECT LOCATION MAP:

VARIOUS LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Various locations within the City sewer limits.

PROJECT DESCRIPTION:

Clean and refurbish existing sewer lines older than 30 years or replace if not able to refurbish. The sewer lines needing repair will be determined by yearly TV inspection.

PROJECT NEED:

Maintain system in good condition to avoid major problems.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$5,974,600	Sewer Replacement
Total Cost =	\$5,974,600	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – MASTER PLAN/CONNECTION FEE UPDATE

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:

LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Throughout the City.

PROJECT DESCRIPTION:

Update the City's 2003 Sewer Master Plan based on anticipated growth projections.

PROJECT NEED:

The Master Plan update will help identify the need for changes to planned facilities based on the timing of growth projections and Growth Management Standards.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Report/Admin	\$500,000	Sewer Replacement
Total Cost =	\$500,000	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER MONITORING PROGRAM

PROJECT NAME

3952 & 5504

PROJECT NO.

PROJECT LOCATION MAP:

N/A

PROJECT LOCATION:

Citywide within the City's sewer service area.

PROJECT DESCRIPTION:

Monitor sewer flows and remaining capacities in lines and pump stations within the Carlsbad sewer service area. Perform sewer flow measurements when required. Update Sewer Master Plan and review adequacy of sewer fees as required.

PROJECT NEED:

To ensure that sewer flows do not exceed line capacity and to ensure timely upgrades of sewer systems in conformance with the Growth Management Standards.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Monitoring	\$352,000	Sewer Connection
Total Cost =	\$352,000	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – TERRAMAR LIFT STATION REPLACEMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

On the north side of Cannon Road between Carlsbad Boulevard and the railroad right-of-way.

PROJECT DESCRIPTION:

Replace the existing lift station to meet current state wastewater discharge requirements and industry standards.

PROJECT NEED:

The existing sewer lift station facility, constructed in 1963, has reached its useful life and should be replaced.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$85,000	Sewer Replacement
Construction	\$432,000	Sewer Replacement
Total Cost =	\$517,000	

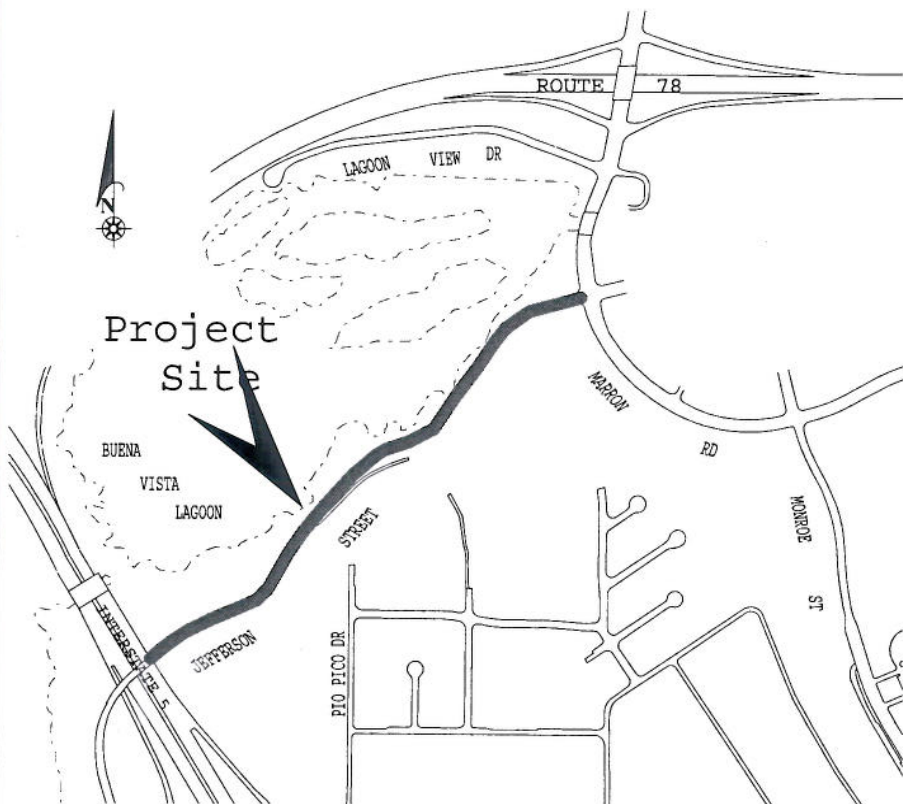
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD FORCE MAIN (VC-4)

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along the south shore of the Buena Vista Lagoon between the Buena Vista Lift Station and I-5.

PROJECT DESCRIPTION:

Replace existing 16" pipeline with 24" pipeline to provide dual 24" force mains.

PROJECT NEED:

Increase capacity of sewer force main system to accommodate future sewer generation.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$75,000	Sewer Connection Fees
Environmental	\$125,000	Sewer Connection Fees
Construction	\$3,050,000	Sewer Connection Fees
Admin/Inspection	\$100,000	Sewer Connection Fees
Total Cost =	\$3,350,000	

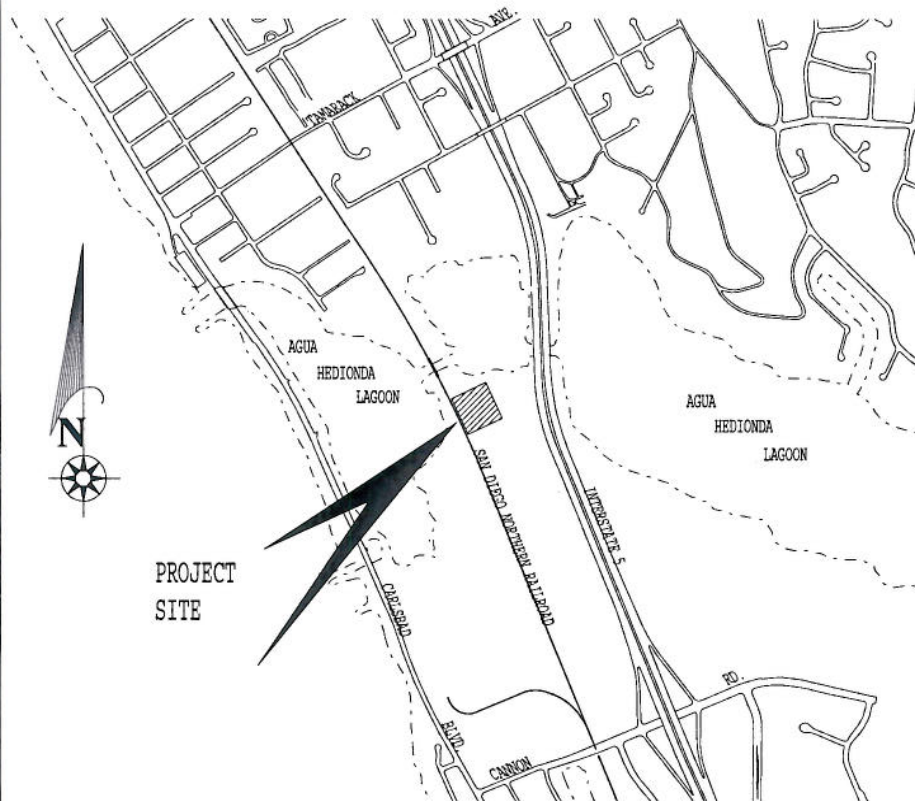
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD INTERCEPTOR AGUA HEDIONDA LIFT STATION (VC 12)

PROJECT NAME

3492
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

On the south shore of Agua Hedionda Lagoon adjacent to the east side of the railroad tracks.

PROJECT DESCRIPTION:

Upgrade existing pump station to increase capacity for buildout conditions. Replace existing pumps with larger capacity pumps and associated appurtenances. Carlsbad shares the total cost of the project with the City of Vista at a 50/50% share.

PROJECT NEED:

Required to handle sewage flows for buildout population.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Environmental	\$500,000	Sewer Connection Fee
Design	\$600,000	Sewer Connection Fee
Construction	\$16,300,000	Sewer Connection Fee
Total Cost =	\$17,400,000 *	

*Includes Vista's share of costs.

Annual Operating Cost = \$149,000

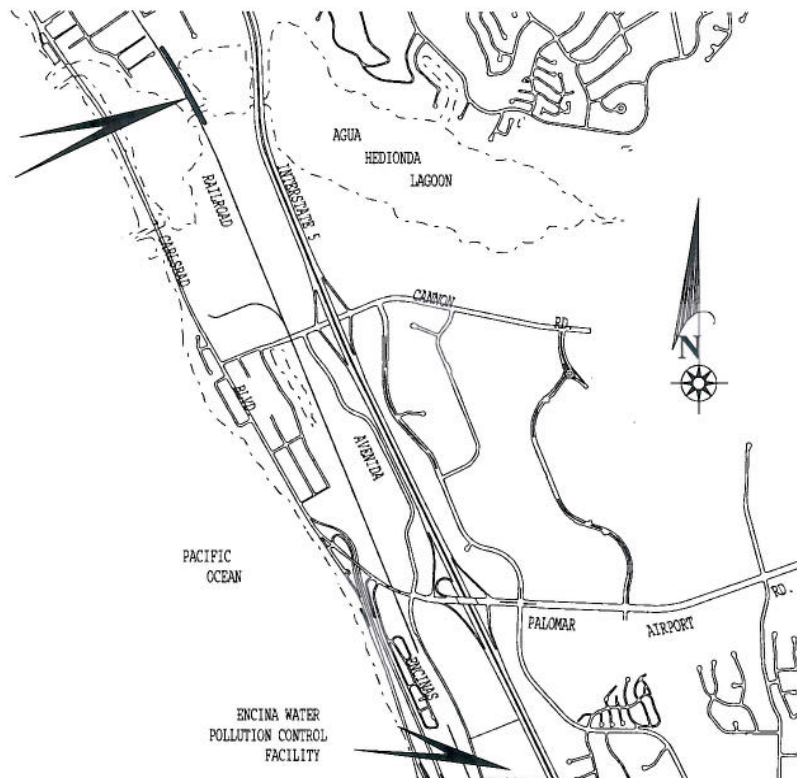
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - VISTA/CARLSBAD INTERCEPTOR SEWER REACH VC11B

PROJECT NAME

3886
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along NCTD railroad right-of-way from Olive Avenue south across Agua Hedionda Lagoon to the Agua Hedionda Lift Station.

PROJECT DESCRIPTION:

Replace existing Vista/Carlsbad Interceptor Sewer Reach VC11B and bridge (wood trestle) with 800 feet of 54-inch pipeline and a new concrete bridge. Project cost is shared with the City of Vista.

PROJECT NEED:

Required to handle buildout flows by replacing existing pipeline and the wood bridge.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Environmental	\$100,000	Sewer Connection Fee
Design	\$200,000	Sewer Connection Fee
Construction	\$6,130,000	Sewer Connection Fee
Total Cost =	\$6,430,000 *	

*Cost includes Vista's share of costs.

Annual Operating Cost = \$568

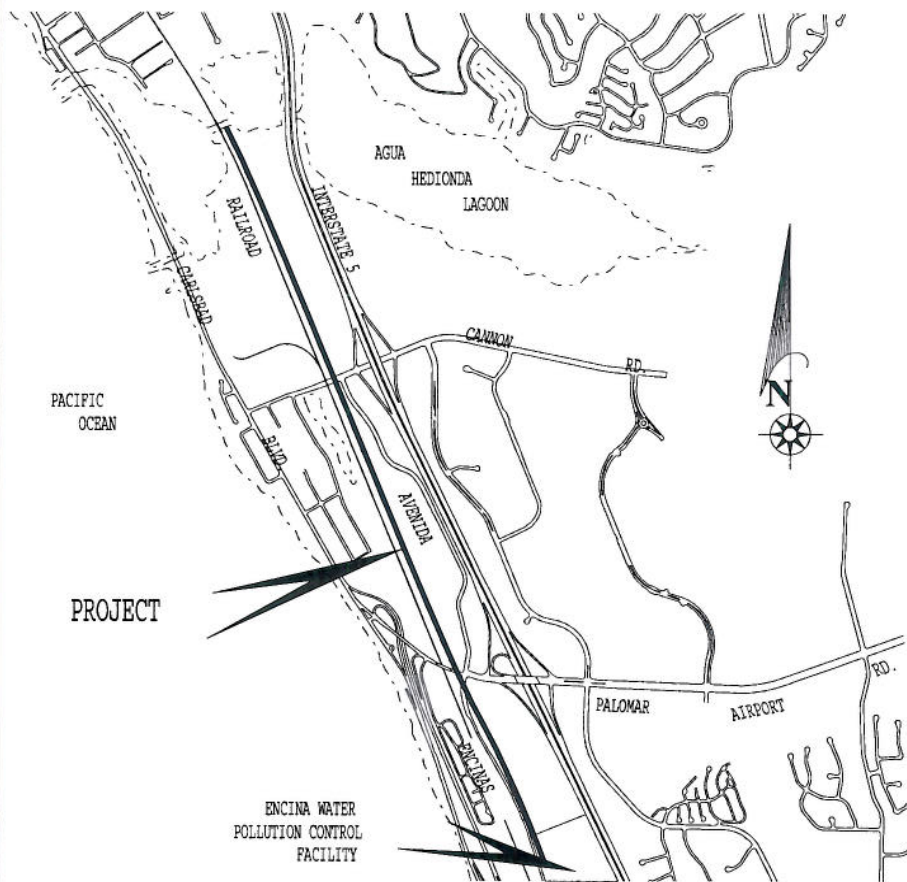
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - VISTA/CARLSBAD INTERCEPTOR SEWER REACHES VC13 TO VC15

PROJECT NAME

3949
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From the Agua Hedionda Lift Station south to the Encina Water Pollution Control Facility.

PROJECT DESCRIPTION:

Replace existing Vista/Carlsbad Interceptor Sewer Reaches VC13 to VC15 with a 54" pipeline. Project cost is shared with the City of Vista.

PROJECT NEED:

Required to handle buildout flows and deteriorated pipelines.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design	\$700,000	Sewer Connection Fees
Construction	\$14,000,000	Sewer Connection Fees
Total Cost =	\$14,700,000 *	

*Cost includes Vista's share.

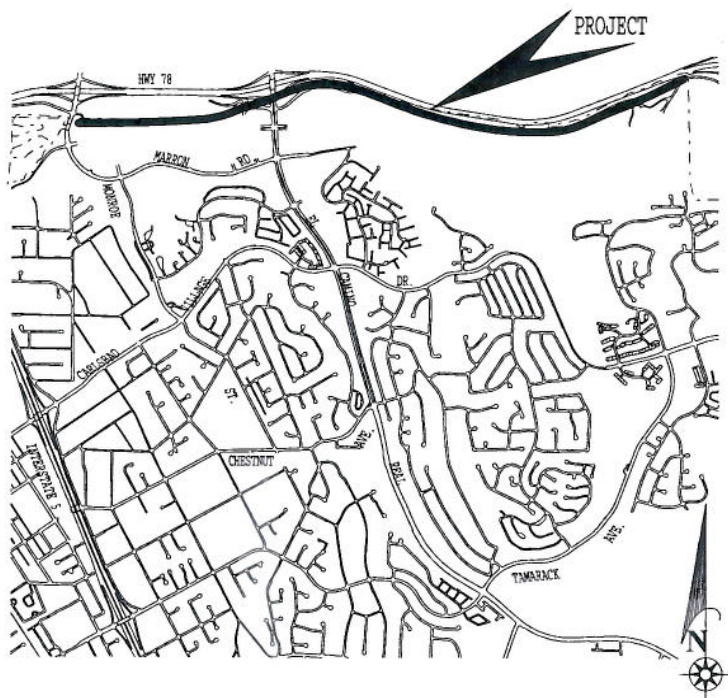
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD INTERCEPTOR SEWER REHABILITATION REACHES 1 THRU 3

PROJECT NAME

3867 & 3950
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Reaches 1, 2 and 3 of the Vista/Carlsbad Interceptor Sewer located south of Highway 78 from Jefferson Street to the City limits.

PROJECT DESCRIPTION:

Reaches 1, 2 and 3 of the Vista/Carlsbad (V/C) 36" Ductile Iron Interceptor and manholes have corroded significantly. VC1 and 2 will be lined with PVC and manholes will be rehabilitated. VC3 will be completely replaced. V/C interceptor is jointly owned by the City of Vista and the City of Carlsbad. Through a joint City agreement, Carlsbad is responsible for 15% of the cost for maintenance and improvements to Reaches 1, 2 and 3. The City of Vista is responsible for managing projects within these reaches. Costs below reflect the City of Carlsbad's share of project.

PROJECT NEED:

- Increase safety: Pipeline and manholes have been determined to be in poor condition. Risk of pipeline failure and sewage spill in environmentally sensitive area exists.
- Unmet needs: Manholes are currently unlined. Concrete is exposed to hydrogen sulfide environment. Lining will increase longevity of the manhole. Lining of pipeline will reduce ground water infiltration into the wastewater system.

FINANCING:

<u>Purpose</u>	<u>Estimated Cost</u>	<u>Funding Source</u>
Design/Construction	\$830,975	Sewer Replacement
Construction	\$2,688,200	Sewer Connection
Total Cost =	\$3,519,175 *	

*Cost includes Administration and Inspection costs.